

ABSTRACT

A liposome composition for localizing an anti-tumor compound to a solid tumor via the bloodstream. The liposomes, which contain the agent in entrapped form, are composed of vesicle-forming lipids and between 1-20 mole percent of a vesicle-forming lipid derivatized with hydrophilic biocompatible polymer, and have sizes in a selected size range between 0.07 and 0.12 microns. After intravenous administration, the liposomes are taken up by the tumor within 24-48 hours, for site-specific release of entrapped compound into the tumor. In one composition for use in treating a solid tumor, the compound is an anthracycline antibiotic drug which is entrapped in the liposomes at a concentration of greater than about 50 μg agent/ μmole liposome lipid. The method results in regression of solid colon and breast carcinomas which are refractory to anthracycline antibiotic drugs administered in free form or entrapped in conventional liposomes.